Monitoring Data Record

Project Title: R-2248D – Charlotte Outer Loop COE Action ID: 200131321
Stream Name: Trib. to Dixon Branch (Site 16) DWQ Number: 011231
City, County and other Location Information: Mecklenburg County, Charlotte Outer Loop, R-2248D Right of Project Station 13+50 Ramp 2D
Date Construction Completed: February 2005 Monitoring Year: (4) of 5
Ecoregion: 8 digit HUC unit 03050103
USGS Quad Name and Coordinates:
Rosgen Classification: Proposed C4 stream type classification
Length of Project: 548 ft. Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 1/25/12
Applicant Information:
Name: NCDOT – Roadside Environmental Unit
Address: 1425 Rock Quarry Rd, Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status:

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level **1**

The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period or through two documented bankfull flow events. Reference photos; plant survival (i.e. identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action);visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. The permittee shall submit the monitoring reports to the USACE, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the USACE, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 6 photos were taken from 3 photo point locations.
Dates reference photos have been taken at this site: 2/23/09, 9/1/09, 3/16/10, 9/28/10, 3/2/11, 9/12/11, 1/25/12

Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference: A site map with photo point locations is attached to this report.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: NCDOT performed a supplemental planting at Site 16 on March 2, 2011. The site was planted with sycamore, yellow poplar, and willow oak bareroot seedlings. Black willow and silky dogwood live stakes were planted where the stream remediation work took place. Planted vegetation noted surviving onsite consisted of silky dogwood, black willow, willow oak, sycamore, river birch, and winged elm. Other vegetation noted included lespedeza, pine, cottonwood, baccharis, sweetgum, briar, goldenrod, jewelweed, green ash, and various grasses.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

This completes the Year 4 Winter evaluation for the UT to Dixon Branch (Site 16) stream relocation. NCDOT installed log sills in May 2010 to stop the previously noted headcut and further stabilize the stream. Three of the four installed log sills have water piping around these structures at the time of the monitoring evaluation but massive amounts of sediment deposited from upstream onto the site have improved these log sills. The sediment has filled in some of the voids in and around these log sills. A bankfull event has occurred at the site since the last evaluation. NCDOT will continue to monitor for channel stability at this stream relocation.

Date 1/25/12	Between PP#1 and PP#2	Between PP#1 and PP#2	Between PP#1 and PP#2	Between PP#1 and PP#2	Between culvert outlet to PP#1
Structure Type	Log Sill #1	Log Sill #2	Log Sill #3	Log Sill #4	
Is water piping through or around structure?	Water is piping around left side of log sill	Water is flowing over log sill but is also piping around right side	Water is piping around left side of log sill	Water is flowing over log sill	
Head cut or down cut present?					
Bank or scour erosion present?		Right bank has eroded			Bank erosion present
Other problems noted?					

Section 4. DEBIT LEDGER

The entire UT to Dixon Branch (Site 16) stream mitigation site was used for the R-2248D project to compensate for unavoidable stream impacts.

UT to Dixon Branch

Site 16

Photo Point #1 (Upstream)

Photo Point #1 (Downstream)

Photo Point #2 (Upstream)

Photo Point #2 (Downstream)

Photo Point #3 (Upstream)

Photo Point #3 (Downstream)

Year 4 Winter – January 2012

UT to Dixon Branch

Site 16

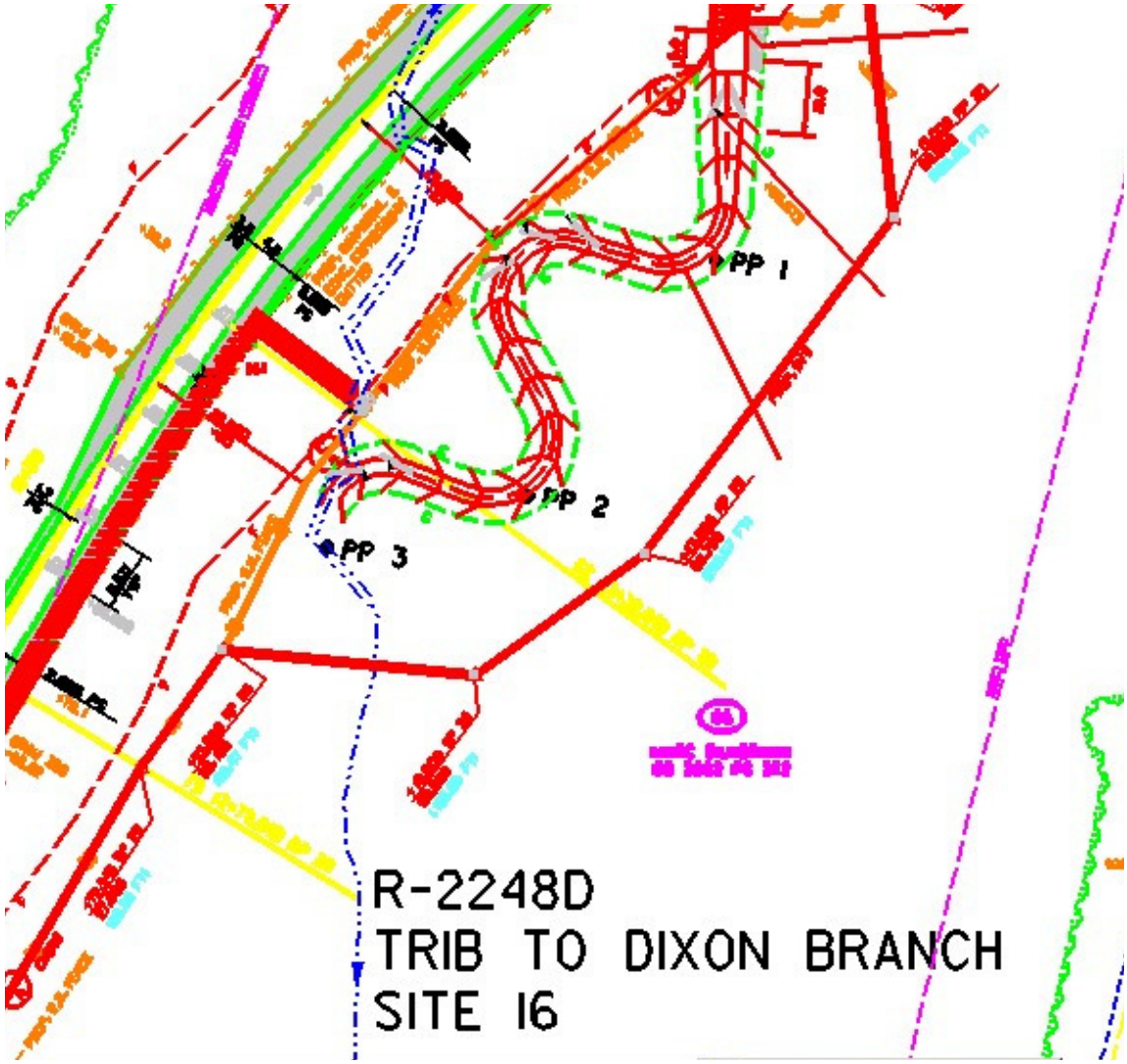
Log Sill #1 (side view)

Log Sill #2 (looking upstream)

Log Sill #3 (looking upstream)

Log Sill #4 (looking upstream)

Year 4 Winter – January 2012


PP 1
PP 2
PP 3
R-2248D
TRIB TO DIXON BRANCH
SITE 16